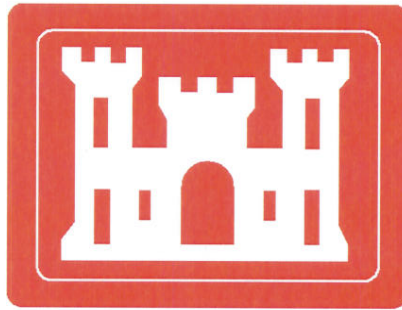


**FINAL
SUPPLEMENTAL
ENVIRONMENTAL ASSESSMENT**

**CONVEYANCE TREATMENT FOR LA JOYA ACEQUIA
SOCORRO COUNTY, NEW MEXICO**



**PREPARED BY
U.S. ARMY CORPS OF ENGINEERS
ALBUQUERQUE DISTRICT
4101 JEFFERSON PLAZA NE
ALBUQUERQUE, NEW MEXICO**

JANUARY 2008

**U.S. ARMY CORPS OF ENGINEERS
ALBUQUERQUE DISTRICT**

SUPPLEMENTAL FINDING OF NO SIGNIFICANT IMPACT

**CONVEYANCE TREATMENT FOR LA JOYA ACEQUIA
SOCORRO COUNTY, NEW MEXICO**

A 1995 Corps Environmental Assessment (EA) addressed environmental impacts associated with the rehabilitation of 1.4 miles of the La Joya Acequia, in Socorro County, NM. Impacts for the rehabilitation of a new diversion structure were documented in a 1999 EA. Under a 2001 EA a 2.1-mile segment of the acequia was rehabilitated. The proposed fall-winter 2007-2008 construction will rehabilitate 1165 ft of the acequia. These repairs would consist of installing concrete lining to replace the existing earthen ditch. Other work includes replacing existing arroyo pipes, check gates, drop structures and turnouts. The improvements would provide a more efficient flow of water to the system. The existing system has significant conveyance losses, weak embankments, high sedimentation, and is often significantly damaged by high flows from arroyos. These problems result in water loss and high maintenance costs to repair damages and dredge the ditch.

Four alternatives to rehabilitate the earthen ditch have been considered: 1.) Install concrete lining and/or pipe to address specific problems along the ditch (the preferred alternative); 2.) Install pipe throughout the system; 3.) Concrete-line the entire system; and 4.) No action. The no action alternative would result in continued maintenance problems and expenses and seepage loss of valuable irrigation water associated with the existing earthen ditch. None of the action alternatives were determined to have significant environmental effects. Alternative 1, the preferred alternative, was determined to be the best design to meet the needs of the acequia association and solve the present problems with the ditch.

Section 404 of the Clean Water Act (CWA) provides for the protection of waters and wetlands of the United States from impacts associated with discharges of dredged or fill material into waters of the U.S. Certain discharges associated with the construction and maintenance of irrigation ditches are exempt from Section 404 permit requirements (33 CFR 323.4(a), Exemption No. 3). Therefore, a Department of the Army permit under section 404 of the CWA is not required for work which encroaches on the Salis Arroyo, which is the sole arroyo crossing within the scope of this work.

The current project area has been previously surveyed for cultural resources and no archaeological sites or historic properties occur within the project area other than the acequia itself. The historic La Joya Acequia was previously determined eligible for nomination to the National Register of Historic Places under criteria "a" and "d" of 36 CFR 60.4. Thirty-nine percent (18,314 feet) of the 8.9-mile La Joya acequia madre's open earthen ditch has been affected by the installation of either concrete ditch lining or underground irrigation pipeline. The currently proposed project would affect an

additional 1,165 feet or about 2.4-percent of the earthen ditch. The current project would have a negligible effect to the acequia. One archaeological site, LA88304, a prehistoric and Hispanic component site, occurs near the project area but would not be affected by the proposed project. No other cultural resources are known to occur in the immediate vicinity of the project area. Informal consultation letters were mailed to Tribes with concerns in the area. Currently, there are no known cultural resources or traditional cultural properties concerns. The New Mexico State Historic Preservation Officer has reviewed and concurred with Corps findings.

The proposed action would result in only minor and temporary adverse impacts on soils, water quality, air quality and noise levels, vegetation, and wildlife during construction. The following elements have been analyzed and would not be significantly affected by the proposed action; socioeconomic environment, air quality, water quality, noise levels, flood plains, wetlands, biological resources, and threatened and endangered species. Based upon these factors and others discussed in detail in the Supplemental Environmental Assessment, I have determined that the planned actions to rehabilitate the La Joya Acequia will have no significant impact on the human environment. Therefore, an Environmental Impact Statement will not be prepared for this project.

25 JAN 2008

Date



Bruce Estok
Lieutenant Colonel, EN
District Engineer

**U.S. ARMY CORPS OF ENGINEERS
ALBUQUERQUE DISTRICT
SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
CONVEYANCE TREATMENT OF LA JOYA ACEQUIA
SOCORRO COUNTY, NEW MEXICO**

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1.0 INTRODUCTION

1.01 BACKGROUND AND LOCATION

The Water Resources Development Act of 1986 (Public Law 99-662) authorized the restoration and rehabilitation of irrigation ditch systems (acequias) in New Mexico. Under Section 1113 of the Act, Congress has found that New Mexico's acequias date from the eighteenth century and, due to their significance in the settlement and development of the western United States, should be restored and preserved for their cultural and historic values to the region. The Secretary of the Army, therefore, has been authorized and directed to undertake, without regard to economic analysis, such measures as are necessary to protect and restore New Mexico's acequias. The non-Federal financial responsibility of any work carried out under this section of the Act is 25 percent.

In September 2001, the Albuquerque District Engineer signed a Finding of No Significant Impact (FONSI) for the work described in the Environmental Assessment entitled "Conveyance Treatment for La Joya Acequia, Socorro County, New Mexico in September of 2001" (USACE 2001, hereinafter referred to as the "01 EA"). A copy of this document is available upon request from the Albuquerque District Corps of Engineers, Environmental Recourses Section (hereinafter referred to as the "Corps"). In 2001, a Final Supplemental Fish and Wildlife Coordination Act Activity Report for the conveyance treatment for the La Joya Acequia was conducted. A copy of this document is available upon request from the U.S Fish and Wildlife Service New Mexico Ecological Services Field office.

The 8.9-mile La Joya Acequia begins just south of New Mexico Highway 60 along the inland edge of the floodplain on the east side of the Rio Grande. The ditch is located east of Bernardo in Socorro County, New Mexico (see Figure 1). The acequia is within the La Joya and Abeytas, New Mexico, U.S. Geological Survey (USGS) 7.5-minute quadrangle maps (see Figure 2). The heading structure at Highway 60 withdraws water from another ditch, the Lower San Juan Canal (SJC), managed by the Middle Rio Grande Conservancy District (MRGCD). The return flows from the acequia empty into the river via the Bernardo Arroyo about two miles south of the village of La Joya. The La Joya Acequia is the only communal acequia system between Albuquerque and Elephant Butte Reservoir as all other ditches are part of MRGCD. The acequia association is authorized to divert up to 36 cubic feet per second (cfs) for three acre-feet per acre per year (01EA).

The Corps has completed two major rehabilitation projects on portions of the ditch. The first in 1996, when 4,620 feet were lined with concrete and 1,993 feet were

replaced with buried 48-inch diameter pipe. In addition, culverts at two arroyo crossings were replaced with pipe plus 10-foot long concrete transition structures at each end of the arroyo crossing for the transitions between ditch and pipe. In 2001, 4,765 feet of additional ditch was replaced with 48-in diameter pipe. In addition, 6395 feet of ditch was reshaped, placed on proper grade and lined with concrete to produce a smooth, trapezoidal channel for efficient water conveyance. Four arroyo crossings were rebuilt with buried 48-inch diameter pipe, plus hardened transition/ protection structures. A 15-foot wide dirt service road was constructed on the east bank part of the ditch to provide the acequia association with maintenance

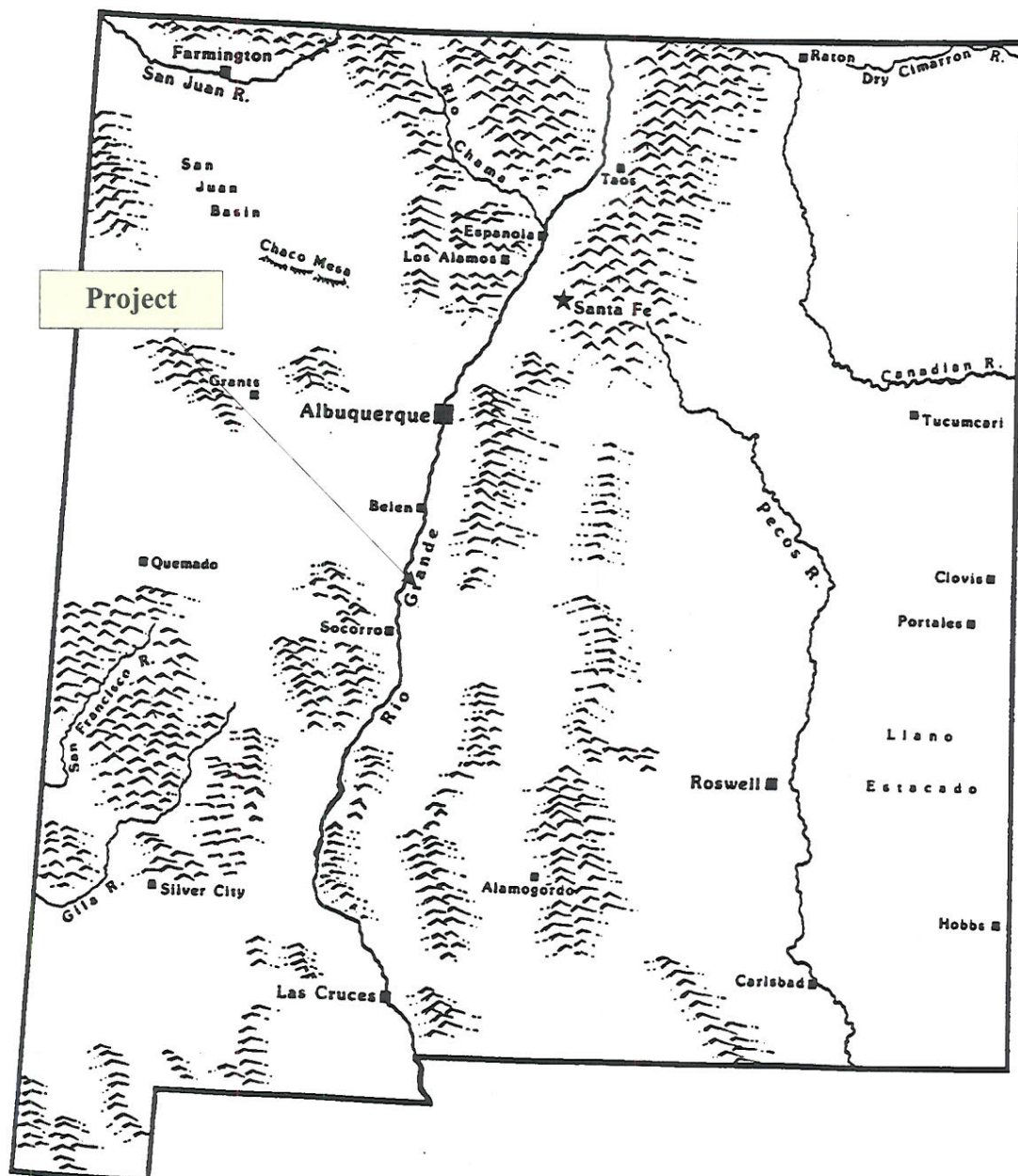


Figure 1. Map showing location of the project area for La Joya Acequia Rehabilitation, Socorro County, New Mexico.

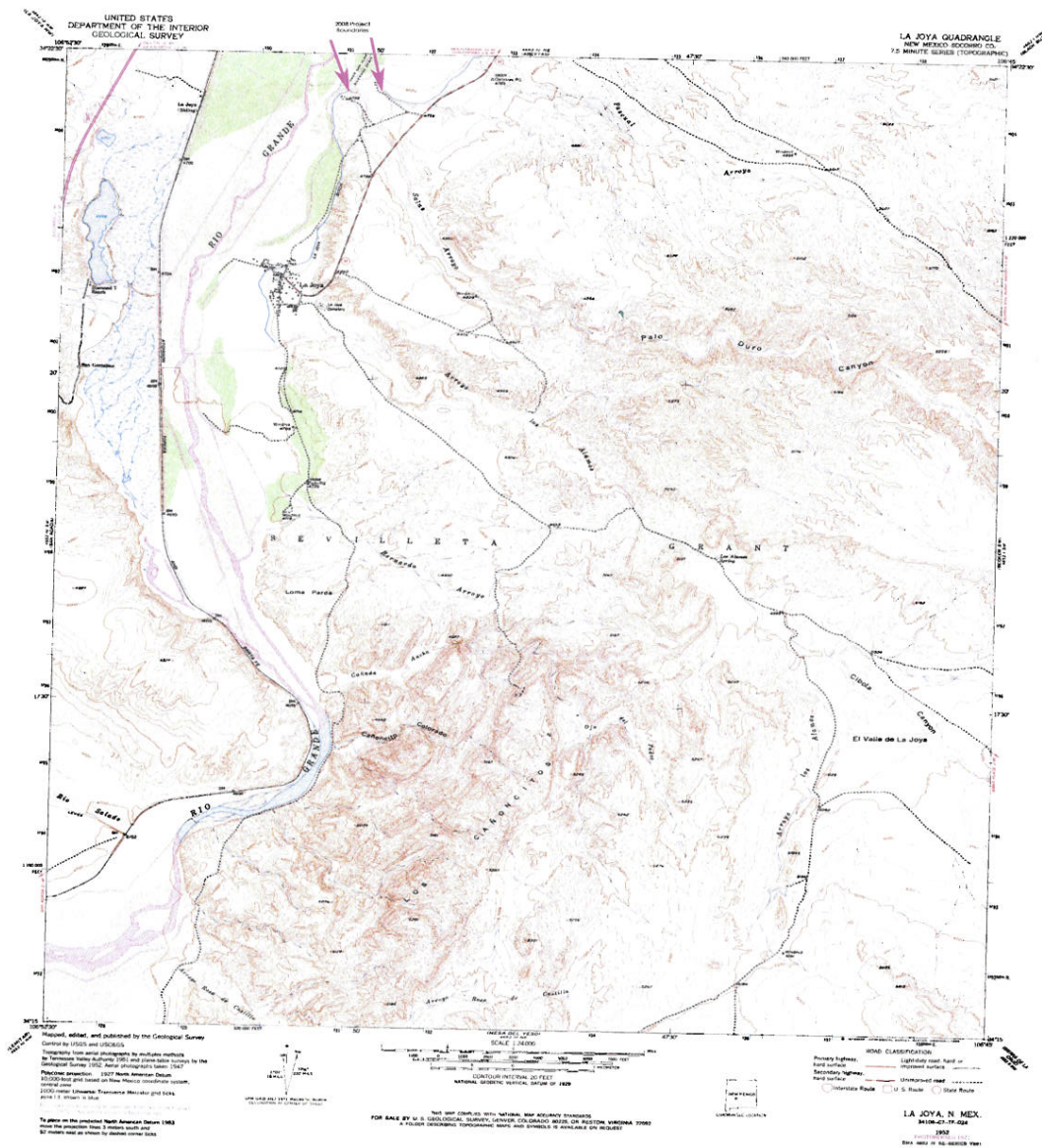


Figure 2. La Joya Acequia Rehabilitation, Socorro County, New Mexico. Adapted from: USGS Quad map: La Joya, NM (34106-c7).

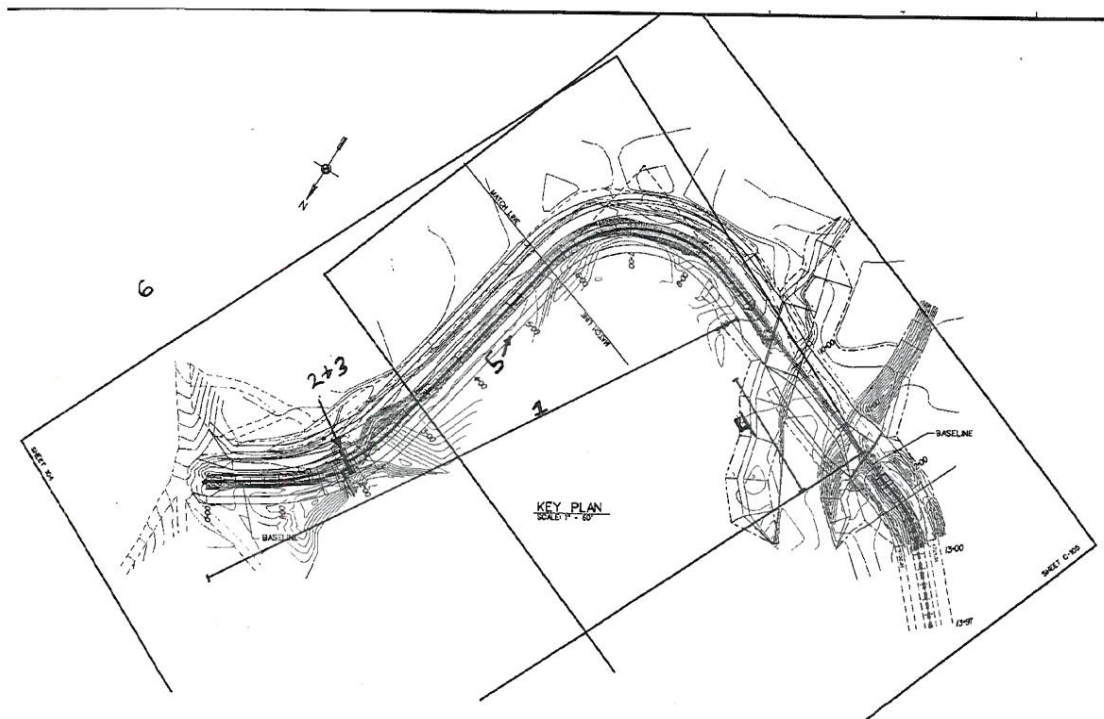


Figure 3. Key Plan of the Proposed Project Adapted from: La Joya Acequia System improvements Phase III Key Plan and General Notes sheet no. C-102

1.02 PURPOSE AND NEED AND PROJECT DISCRIPTION

The La Joya acequia system experiences significant water seepage and evapotranspiration. Ditch banks are subject to damage because of bank instability, which allows for the increase of sediment inflow. This instability has also shown to be a major problem during flooding, and has the potential to damage property and housing that parallel the acequia. Buried piping at arroyo crossings are subject to damage from water flows.

These problems result in water losses and high maintenance costs to repair arroyo crossings and dredge sediment from the acequia. The proposed actions in the fall and winter of 2007-2008 and potential future actions on the ditch are designed to address these problems. The purpose of the work is to provide a reliable, efficient, low cost, and low-maintenance system for the conveyance and distribution of water for use by the members of the acequia association.

Proposed 2007-2008 construction as shown in figure 3:

- 1: Replacement of approximately 965' of earthen channel with concrete lining.
- 2: Installation of a 48-in check gate
- 3: Installation of a 12-in diameter turnout gate
- 4: Replacement of 200' of existing buried pipe under the Salis arroyo, with new, 48-inch pipe reinforced with 2 inch wire rip-rap.
- 5: Construct a 10' maintenance road that parallels the acequia on the west side of the channel located approximately 30' from the center of the ditch.
- 6: A contactor staging area located east of the acequia and at the beginning (north end) of the proposed project. A waste area would be located at an approved commercial site outside of the proposed project boundaries. An area that has been previously disturbed during previous projects will be used as a borrow area.
7. Seeding of all disturbed areas with native grasses, forbs, and shrubs after construction has been included to improve the likelihood of successful reclamation, as well as providing improved wildlife habitat. Care will be taken to avoid the spread of exotic weed species to and from the proposed project site.

1.03 ALTERNATIVE ANALYSIS

In general, standard earthen ditch channel rehabilitation is accomplished either by installing pipe in the old ditch, lining the ditch with concrete, lining the ditch with plastic or a combination of these methods. Pipes or siphons that cross arroyos require periodic repair or replacement due to aging or damage from storm water flows. Factors that can determine the particular method of ditch rehabilitation include the elevation and slope of land adjacent the ditch, public safety, and cost. Seepage problems and bank stabilization are resolved with either piping or concrete lining. Maintenance of open, concrete lined ditches is easiest as areas needing repairs are readily identified and accessible. Open ditches are aesthetically pleasing and in keeping with the cultural and historical nature of these structures. Buried pipe eliminates public safety concerns associated with open ditches, eliminates sediment entry from adjacent soil erosion in sloped areas, and eliminates channel blockages from external debris. At the base of slopes, replacing the earthen ditch with pipe can restore natural subsurface hydrology. Pipe or concrete linings both provide for more efficient distribution of irrigation water to the users and reduced maintenance of the system.

The section of ditch which crosses the Salis arroyo would be piped rather than lined. If this portion was lined it would be prone to channel blockage from external debris. Piping this section eliminates this factor. The remaining section of the acequia would be concrete lined to maintain the cultural and historical integrity, aesthetics,

increase bank stability, and decrease maintenance costs. The no-action alternative would have no impact to the ensuing resources; however the acequia would continue to leak and require constant maintenance.

1.04. REGULATORY COMPLIANCE

This Supplemental Environmental Assessment (SEA) was prepared by the Corps, in compliance with all applicable Federal statutes, regulations, and Executive Orders, including, but not limited to:

- National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321 et seq.)
- Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500 et seq.)
- Clean Air Act of 1972, as amended (42 U.S.C. 7609 et seq.)
- Clean Water Act of 1977, as amended (33 U.S.C. 1251 et seq.)
- Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.)
- Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.)
- Farmland Protection Policy Act (P.L. 97-90)
- Floodplain Management (Executive Order 11988)
- Protection of Wetlands (Executive Order 11990)
- National Historic Preservation Act of 1966, as amended (16 U.S.C. 470a et seq.)
- Protection of Historic Properties (36 CFR 800 et seq.)
- Protection and Enhancement of the Cultural Environment (Executive Order 11593)
- Native American Graves Protection and Repatriation Act of 1990
- Archeological Resources Protection Act of 1979
- Environmental Justice (Executive Order 12898)
- Bald Eagle Protection Act (16 U.S.C. 668-668d)
- Migratory Bird Treaty Act (16 U.S.C. 703-712)

This EA also reflects compliance with applicable State of New Mexico regulations and standards for water and air quality, as well as regulations conserving endangered plants and animals.

2.0 EXISTING ENVIRONMENT AND FORSEEABLE EFFECTS OF THE PROPOSED ACTION

2.01 INTRODUCTION

The proposed work would be accomplished at discrete locations within the boundaries described in the 01 EA. All work would be initiated after the irrigation season in the late fall and winter and completed before the onset of irrigation in the spring. The following paragraphs discuss effects of the proposed action on the physical, biological, and cultural resources at the work sites and staging areas.

2.02 PHYSICAL RESOURCES

The 01 EA determined that the previous conveyance treatment had no effect on the following physical resources of the area. Physiography; climate; soils; floodplains and wetlands; hydrology; land and water uses; air quality and noise; socioeconomic environment; and aesthetics. Since the proposed work would be within the construction limits of the 01 EA, the ensuing paragraphs discuss only those resources that could have changed since the signing of the 01 Finding of No Significant Impact (FONSI), or could be impacted by the proposed work.

2.03 WATERS OF THE U.S. AND WATER QUALITY

Under this proposed action, the Salis Arroyo would be backfilled for a new 48 inch pipe. The Clean Water Act provides for the protection of waters and wetlands of the United States from impacts associated with irresponsible or unregulated discharges of dredged or fill material in aquatic habitats including wetlands, as defined under 404(b)(1). However, this act also states that certain discharges associated with the construction and maintenance of irrigation ditches are exempt from Section 404 permit requirements (33 CFR323.4 (a), Exemption No.3). Discharges associated with siphons, pumps, head gates, wing walls, weirs, diversion structures, and other facilities functionally related to irrigation ditches are also included in this exemption. Therefore, a Department of the Army Section 404 permit would not be required for the proposed action. Since the site is exempt from permitting under Section 404, it is also exempt from state certification under Section 401 of the Clean Water Act.

Section 402(p) of the Clean Water Act specifies that storm water discharges associated with construction activities disturbing one or more acres of total land area must be authorized by a National Pollutant Discharge Elimination System (NPDES) permit. The proposed 2007-08 construction will cover an area greater than one acre, thus the contractor must apply for a NPDES permit through the EPA region 6. Best Management Practices (BMP) would be used to reduce impacts to the water quality of waterways.

2.04 VEGETATION

Large patches of salt cedar (*Tamarix ramosissima* Ledeb.) were identified, ranging from 4-15 ft tall. Dense patches encompassed areas at the north end of the proposed project and became sparser as the ditch approached the Salis arroyo (Appendix A photo 1 and 2). Honey mesquite (*Prosopis glandulosa* Torr.) and two immature Rio Grande cottonwoods (*Populus fremontii* var. *wislizenii*) approximately 15-25ft tall at the southwest end of the site were also identified (Appendix A photo 3). This vegetation would be removed to construct a 10' maintenance road. Sparse number of shrubs located on the arroyo bed would be removed, but would have a very minimal impact on the arroyo (Appendix A photo 4). During the September 24, 2007 project field survey, no

rare plants were found within the project site. All ditch work would be conducted outside the irrigation season (late fall/winter) when water is not present in the acequia. The proposed concrete lining would minimally affect ditch bank hydrophytic (wetland) vegetation and wildlife habitat by eliminating plants being sustained by water seepage from the earthen channel. Though adjacent cottonwoods would no longer receive water through seepage, these trees may still obtain water through root systems that extend into groundwater and from seepage off the adjacent upland slope.

In response to the comments dated December 26, 2007 by the New Mexico Game and Fish (APPENDIX C), the Corps will insure that the reclamation seed mixture will include a variety of native grasses, forbs, and shrubs. A diverse mixture of flora will improve the likelihood of successful reclamation, as well as providing improved wildlife habitat within the project boundaries. The Corps will also insure that introduction and or spread of exotic weed species will not occur during construction.

2.05 THREATENED AND ENDANGERED SPECIES

In July, 2007 the bald eagle (*Haliaeetus leucocephalus*) was delisted by the USFWS. The bald eagle is still covered under the Bald Eagle Protection Act and the Migratory Bird Treaty Act. The Corps has determined that protocols protecting bald eagles within or adjacent to the project would not change. In 2001, a juvenile bald eagle was observed by a Corps biologist within the project boundary (01 EA).

If a bald eagle is present within 0.5 mile upstream or downstream of the active project site in the morning before project activity starts, or following breaks in project activity, the contractor would be required to suspend all activity until the bird leaves of its own volition, or the Corps biologist, in cooperation with the USFWS, determines that the potential for harassment is minimal. However, if an eagle arrives during construction activities or if an eagle is beyond .05 miles the site, construction would not be interrupted. If bald eagles are found consistently in the immediate project area during the construction period, the Corps would contact the USFWS to determine necessary action. On this basis, the planned designs and alternatives would have no affect on the conservation or survival of the bald eagle.

In 2005 a large population of Pecos sunflower (*Helianthus paradoxus*) was discovered at the La Joya State Waterfowl Management which is located to the northwest of the proposed conveyance project (USFWS, 2005). The Pecos sunflower was listed as threatened on October 20, 1999. However, during a September 24, 2007 site visit the Pecos sunflower was not identified in the 2007-2008 proposed construction area.

The Southwestern Willow Flycatcher (*Empidonax traillii extimus*) is known to use the Rio Grande valley on its migratory pathway (National Park Service, 1998). A monoculture of salt cedar on the north end of the project (Appendix A photo 1 and 2) is scheduled to be removed during the construction of the 10' maintenance road. During a November 2, 2007 informal site visit with Debra Hill of the USFWS, it was determined that the area did not have sufficient overstory and understory. Unlike in the 01 EA, this

specific monoculture was determined unsuitable habitat for the Flycatcher. Therefore the construction during 2007-2008 will have no affect on the Southwestern Willow Flycatcher. The USFWS has no comment on the proposed project according to an email response dated November 28, 2007 from Santiago Gonzales of the USFWS.

2.06 CULTURAL RESOURCES

The current La Joya Acequia Rehabilitation Project area, approximately 1,165 feet of the 8.9-mile acequia madre, was previously surveyed for cultural resources in 1991-1992 by Marshall and Marshall (1992) for the Bureau of Reclamation and by Corps archaeologists Gregory D. Everhart and John D. Schelberg in July of 2001 (Everhart 2001). Marshall and Marshall (1992) covered approximately the northern one-half of the La Joya acequia madre, from the La Joya diversion structure at NM Highway 60 downstream to the village of La Joya. Other La Joya acequia project areas previously identified as project areas 3 and 5 and located upstream of the current project area were re-surveyed for cultural resources and the results reported by Kneebone (1995). Since the Corps was assisting the La Joya Acequia Association in 2001 with proposed project areas 1 and 2, and due to the time elapsed since the 1992 Marshall and Marshall and 1995 Kneebone surveys, Everhart and Schelberg re-surveyed the ditch alignment from the diversion structure downstream to the north side of the La Joya community. Their survey excluded a short segment of the ditch within the La Joya community, and for the first time surveyed from the south side of La Joya downstream to the acequia's "desagua", or end of the ditch (Everhart 2001).

To begin the investigation for the current project, on October 23 and 24, 2007, Everhart conducted remote electronic data searches of the New Mexico Archaeological Record Management Section's (ARMS) New Mexico Cultural Resources Inventory System (NMCRIS) database as well as of the State Register of Cultural Properties and the National Register of Historic Places. No State or Federal Register properties are reported to occur in the immediate vicinity of the project area. One archaeological site, LA88304, a prehistoric and Hispanic component site known as Los Ranchitos de la Joya (Marshall and Marshall 1992), occurs near the project area but would not be affected by the proposed project. No other archaeological resources are known to occur in the immediate vicinity of the project area.

The historic La Joya Acequia was previously determined eligible for nomination to the National Register of Historic Places under criteria "a" and "d" of 36 CFR 60.4, and two segments of the La Joya Acequia were previously given New Mexico Laboratory of Anthropology site numbers, LA109835 and LA108453, for Segments No. 3 and No. 5, respectively (Kneebone 1995:8; Everhart 2001:11-12). The current concrete ditch lining and siphon rehabilitation project will connect to the downstream end of Segment 5 (LA108453). The proposed rehabilitation work would have a negligible effect to Segment 5.

To date, previous rehabilitation work has converted a total of approximately 18,314 feet of the earthen acequia ditch to either concrete ditch lining or underground irrigation pipeline; Segment 1 (4,765 feet), Segment 2 (6,375 feet), Segment 3 (5,320 feet), and Segment 5 (1,854 feet (see Everhart 2001, Tables 1 and 2). The 18,314 feet of previous rehabilitation covers approximately 39-percent of the 8.9-mile La Joya acequia madre. The currently proposed project would affect an additional 1,165 feet or about 2.4-percent of the earthen ditch.

Consistent with the Department of Defense's American Indian and Alaska Native Policy, signed by Secretary of Defense William S. Cohen on October 28, 1998, and based on the State of New Mexico Indian Affairs Department and Historic Preservation Division's 2007 Native American Consultations List, American Indian Tribes/Pueblos that have indicated they have concerns in this portion of Socorro County have been contacted regarding the proposed project. These include Acoma Pueblo, Comanche Indian Tribe, Hopi Tribe, Isleta Pueblo, Kiowa Tribe, Mescalero Apache Tribe, Navajo Nation, and the White Mountain Apache Tribe. Informal consultation (scoping) letters were mailed to these Tribes on November 16, 2007. Currently, there are no known cultural resources or traditional cultural properties concerns. The New Mexico State Historic Preservation Officer has concurred with the Corps cultural findings (Appendix B).

3.0 CUMULATIVE EFFECTS

There are no foreseeable Federal, State or local actions anticipated in the vicinity of the project area. All work would be accomplished before the commencement of the 2008 irrigation season. The proposed construction would not raise cumulative effects to any environmental or cultural resource to a significant level. The new structures would reduce yearly ditch maintenance, lower water loss, and lessen the potential of flooding of adjacent property.

4.0 CONCLUSION

The proposed action would provide reliable irrigation of agricultural lands owned by members of the La Joya Acequia Association. The planned action would result in minor and or temporary impacts of physical and biological resource in the local area during construction. The 2007-2008 construction would preserve the economic, cultural and historic values of the La Joya acequia system. The proposed action would have no significant impacts over the no-action alternative.

5.0 PREPARERS

Patty Phillips, Project Manager
Justin Reale, Biologist
Gregory Everhart, Archaeologist
Ted Solano, Civil Engineer

QUALITY CONTROL

Champe Green, Senior Ecologist
Julie Alcon, Supervisor Ecologist
John Schelberg PhD., Archaeologist

6.0 REFERENCES

- 1992 Marshall, Michael P. and Christina L. Marshall
Investigations in the Middle Rio Grande Conservancy District: A Cultural Resource Survey of Irrigation and Drainage Canals in the Isleta-South to La Joya Area, The 1991-1992 Bureau of Reclamation Phase II Survey. Prepared by Cibola Research Consultants, Corrales, New Mexico. Submitted by Complete Archaeological Services Associates, Cortez, Colorado. CASA Report No. 92-32. Prepared for the U.S. Bureau of Reclamation, Upper Colorado Region, Salt Lake City.
- 1995 Kneebone, Ronald R. A Cultural Resources Inventory of 17 Hectares near Contreras, Socorro County, New Mexico. Report No. COE-95-05 (NMCRIS No. 49351). Prepared for the U.S. Army Corps of Engineers, Albuquerque District, Albuquerque.
- 1997 National Park Service, Colorado Plateau Research Station. A Southwestern Willow Flycatcher Natural History Summary and Survey Protocol.
- 2001 U.S. Army Corps of Engineers, Albuquerque District. Environmental Assessment and Finding of No Significant Impact for Conveyance Treatment for La Joya Acequia Socorro County, New Mexico.
- Everhart, Gregory D. A Cultural Resources Inventory of 16.5 Acres for the Rehabilitation of La Joya Acequia, near La Joya, Socorro County, New Mexico. Report No. COE-01-04 (NMCRIS No. 75725). Prepared for the U.S. Army Corps of Engineers, Albuquerque District, Albuquerque.
- 2005 U.S. Fish and Wildlife Service, Southwest Region. Pecos Sunflower Recovery Plan.

APPENDIX A

Photo 1



Photo 2



Salt cedar (*Tamarix ramosissima* Ledeb.) that will be removed to construct the 10' maintenance road. (a. is looking to the west on the west side of the acequia, b. is looking to the southeast from the northwest end of the project.)

Photo 3



A Cottonwood that will be removed at the southwest end of the project.

Photo 4



Salis Arroyo looking to the South.

APPENDIX B

NOTICE OF AVAILABILITY FOR PUBLIC REVIEW OF DRAFT EA

Notice of Availability of Draft Supplemental Environmental Assessment for the Conveyance Treatment for the La Joya Acequia

The U.S. Army Corps of Engineers (Corps) has released a Draft Supplemental Environmental Assessment (DSEA) for the rehabilitation of the La Joya Acequia. The objective of this proposed project is to reduce ditch maintenance and decrease seepage. The Corps has planned this project conjunction with The La Joya Acequia Association. This project proposes to concrete line a section of the acequia north of the Salis Arroyo and re-pipe the portion that crosses the Salis Arroyo.

Public review of the DSEA will begin on November 26 and run for 30 days until December 26. The DSEA is available on the Corps web site at <http://www.spa.usace.army.mil> (go to FONSI/Environmental Assessments). A copy of the DSEA is also available for review at the Socorro Public Library, 401 Parks St., Socorro, NM. For more information or to request a hardcopy please contact Justin Reale, Biologist at 342-3138 or e-mail Justin.K.Reale@spa02.usace.army.mil.

APPENDIX C

PUBLIC REVIEW COMMENT LETTERS

United States Department of Agriculture



Natural Resources Conservation Service
6200 Jefferson NE, Room 305
Albuquerque, NM 87109
Phone: (505) 761-4400 Fax: (505) 761-4463
Website: www.nm.nrcs.usda.gov

December 5, 2007

U.S. Army Corps of Engineers, Albuquerque District
Ms. Julia Alcon, Chief, Environmental Resources Section
4101 Jefferson Plaza NE
Albuquerque, New Mexico 87109-3435

Dear Ms. Alcon:

The Natural Resources Conservation Service has reviewed the Draft Supplemental Environmental Assessment for the rehabilitation of the La Joya Acequia. The NRCS has no objection to the proposed action.

Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in dark ink, appearing to read "Dennis L. Alexander", is written over a light gray circular stamp.

DENNIS L. ALEXANDER
State Conservationist

Helping People Help the Land
An Equal Opportunity Provider and Employer



THE NAVAJO NATION

JOE SHIRLEY, JR.
PRESIDENT

BEN SHELLY
VICE-PRESIDENT

December 10, 2007

Ms Julie Alcon, Chief
Environmental Resources Section
Department of the Army
4101 Jefferson Plaza NE
Albuquerque, New Mexico 87109-3435

*Recd 12-14-2007
ODE*

Subject: Tribal Consultation Request, Proposing rehabilitation of a short segment of the La Joya Acequia's irrigation ditch located near the rural historic community of La Joya, Socorro County, NM

Dear Ms. Alcon:

Our apology for an oversight of our response to your request, please note that in reference to your letter of November 16, 2007, the Historic Preservation Department – Traditional Culture Program (HPD-TCP) received a request for consultation regarding the above undertaking and/or project. After reviewing your consultation documents, HPD-TCP has concluded the proposed undertaking/project area **will not impact** any Navajo traditional cultural properties or historical properties. The project is outside the Navajo Aboriginal Lands.

However, if there are any inadvertent discoveries made during the course of the undertaking, your agency shall cease all operations within the project area. HPD-TCP shall be notified by telephone within 24 hours and a formal letter shall be sent within 72 hours. All work shall be suspended until mitigation measures/procedures have been developed in consultation with the Navajo Nation.

The HPD-TCP appreciates your agency's consultation efforts, pursuant to 36 CFR Pt. 800.1 (c)(2)(iii). Should you have additional concerns and/or questions, do not hesitate to contact me. My contact information is listed below.

Sincerely,

Mr. Timothy Begay, Cultural Specialist
Historic Preservation Department/Traditional Culture Program

Tel: 928.871.7688
TCP 08-286
File: Office file/chrono

Fax: 928.871.7886

E-mail: <timothy_begay@yahoo.com>

GOVERNOR
Bill Richardson



DIRECTOR AND SECRETARY
TO THE COMMISSION

Bruce C. Thompson, Ph.D.

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December 26, 2007

Ms. Julie Alcon
Chief, Environmental Resources Section
Albuquerque District, Corps of Engineers
4101 Jefferson Plaza NE
Albuquerque, New Mexico 87109-3435

Re: Draft Environmental Assessment: Conveyance Treatment for La Joya Acequia
NMGF Doc. No. 11840

Dear Ms. Alcon:

The Department of Game and Fish (Department) has reviewed the Draft Supplemental Environmental Assessment regarding the above referenced project. The Department does not anticipate significant impacts to wildlife or sensitive habitats. However, this area does support a diverse population of small mammals, birds, and reptiles, and the soils are highly erodible. We submit the following recommendations to minimize the environmental impacts of this project:

- The reclamation seed mixture should include a variety of native grasses, forbs, and shrubs; a diverse seed mix will improve the likelihood of successful reclamation, as well as providing improved wildlife habitat.
- Care should be taken to avoid the introduction or spread of exotic weed species.

For your information, we have enclosed a list of sensitive, threatened and endangered species that occur in Socorro County.

For more information on listed and other species of concern, contact the following sources:

1. Species Accounts: <http://fwie.fw.vt.edu/states/nm.htm>
2. Species Searches: <http://nmnhp.unm.edu/bisonm/bisonquery.php>
3. New Mexico Wildlife of Concern by Counties List:
http://www.wildlife.state.nm.us/conservation/share_with_wildlife/documents/speciesofconcern.pdf
4. Habitat Handbook Project Guidelines:
http://wildlife.state.nm.us/conservation/habitat_handbook/index.htm
5. For custom, site-specific database searches on plants and wildlife. Go to Data then to Free On-Line Data and follow the directions go to: <http://nmnhp.unm.edu>
6. New Mexico State Forestry Division (505-827-5830) or <http://nmrareplants.unm.edu/index.html> for state-listed plants
7. For the most current listing of federally listed species always check the U.S. Fish and Wildlife Service at (505-346-2525) or <http://ifw2es.fws.gov/EndangeredSpecies/lists/>.

Julie Alcon

December 26, 2007

Page 2

Thank you for the opportunity to review and comment on your project. If you have any questions, please contact Mark Olson, Northwest Area Habitat Specialist, at (505) 222-4708 or mark.olson@state.nm.us.

Sincerely,



Matthew Wunder, PhD
Chief, Conservation Services Division

MW/mo

(encl: 1)

cc: Acting Ecological Services Field Supervisor, USFWS
Brian Gleadle, Northwest Area Operations Chief, NMGF
Mark Olson, Northwest Area Habitat Specialist, NMGF

APPENDIX D

STATE HISTORIC PRESERVATION AGENCY CONCURRENCE LETTER



DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
4101 JEFFERSON PLAZA NE
ALBUQUERQUE NM 87109-3435

December 21, 2007

Planning, Project and Program Management Division
Planning Branch
Environmental Resources Section



Ms. Katherine Slick
State Historic Preservation Officer
New Mexico Department of Cultural Affairs
Historic Preservation Division
Bataan Memorial Building
407 Galisteo Street, Suite 236
Santa Fe, New Mexico 87501

Re: HPD Consultation No. 062950

Dear Ms. Slick:

Pursuant to 36 CFR Part 800, the U.S. Army Corps of Engineers (Corps), Albuquerque District, is seeking your concurrence in our determination of an "Adverse Effect to Historic Properties" for the proposed rehabilitation of a short segment of the La Joya Acequia's irrigation ditch (Undertaking). The Corps, at the request of the New Mexico Interstate Stream Commission and the La Joya Acequia Association, is planning to rehabilitate a 1,285-foot segment of the La Joya Acequia, located near the rural historic community of La Joya, Socorro County, in central New Mexico. Work would be conducted under the Water Resources Development Act (WRDA) of 1986 (Public Law 99-662; 33 U.S.C. 2201 et. seq.), as amended. The Project Sponsors are the New Mexico Interstate Stream Commission and the La Joya Acequia Association.

WRDA authorizes the Acequia Rehabilitation Program to provide for the restoration and rehabilitation of irrigation ditch systems (acequias) in New Mexico. Under Section 1113 of the Act, Congress has found that New Mexico's acequias date from the eighteenth century and, due to their significance in the settlement and development of the western United States, should be restored and preserved for their cultural and historic values to the region. Pursuant to 36 CFR 800.3, the Secretary of the Army has been authorized and directed to undertake, without regard to economic analysis, such measures as are necessary to protect and restore New Mexico's acequias.

The project area is located approximately 1.75 miles north of the community of La Joya. La Joya is located at the southern end of State Highway 304 (old Highway 47), about 7 miles south of the intersection of State Highway 304 with U.S. Highway 60. The Highway 304/60

intersection is about 3 miles east of the Interstate Highway 25 at the small community of Bernardo, about 51 miles south of Albuquerque, New Mexico.

Pursuant to 36 CFR 800.2, consulting parties in the Section 106 process for the Undertaking include the Corps and your office. Consistent with the Department of Defense's American Indian and Alaska Native Policy, signed by Secretary of Defense William S. Cohen on October 28, 1998, and based on the State of New Mexico Indian Affairs Department and Historic Preservation Division's 2007 Native American Consultations List, American Indian Tribes/Pueblos that have indicated they have concerns in this portion of Socorro County have been contacted regarding the proposed project. These include Acoma Pueblo, Comanche Indian Tribe, Hopi Tribe, Isleta Pueblo, Kiowa Tribe, Mescalero Apache Tribe, Navajo Nation, and the White Mountain Apache Tribe. Currently, there are no known Tribal concerns.

Pursuant to 36 CFR 800.4, the Area of Potential Effect (APE) for the Undertaking is considered to be the construction footprint within the La Joya Acequia's 60-foot wide right-of-way (30-feet of either side of the ditch centerline) and an adjacent staging area. The proposed project calls for the rehabilitation of a short segment, approximately 1,285-foot, of the acequia's 8.9-mile long ditch. About 1,000-feet of the existing open earthen ditch will be concrete lined and the existing corrugated metal pipeline under Salas Arroyo, approximately 285-feet in length, will be rehabilitated. The project includes the placement of wire-wrapped rock rip-rap for protection of the Salas Arroyo pipe. The Salas Arroyo floodplain has been highly disturbed by flooding and earth moving activities associated with bank protection in the past. The construction area is approximately 1.7 acres (1,285 ft x 60 ft = 1.7 acres; 0.7 hectares). The project will not deviate from the existing ditch alignment/right-of-way. Existing paved, graveled, and farm roads will be used to access the project area and a previously disturbed area adjacent to the project will be utilized for staging (approximately 1.0-acre). The total APE, therefore, is approximately 2.7 acres (1.09 hectares).

To date, previous rehabilitation work has converted a total of approximately 18,314 feet of the earthen acequia ditch to either concrete ditch lining or underground irrigation pipeline; Segment 1 (4,765 feet), Segment 2 (6,375 feet), Segment 3 (5,320 feet), and Segment 5 (1,854 feet; see Everhart 2001, Tables 1 and 2) (see HPD Consultation No's. 062950 [and the associated No. 064756], 059754, Corps correspondence dated September 16, 1999, and 47744, copies attached for your convenience). The 18,314 feet of previous rehabilitation covers approximately 39-percent of the 8.9-mile La Joya acequia madre. The currently proposed project would affect an additional 1,285 feet or about 2.7-percent of the earthen ditch. Modification of over 30-percent of the acequia is considered as an adverse effect.

The proposed project will increase the efficiency of acequia's water delivery capability by reducing conveyance losses such as seepage and evapotranspiration as well as reducing the continual maintenance problems associated with the Salas Arroyo pipeline. The purpose of the rehabilitation work is to provide a reliable, low cost, and low-maintenance system for the efficient conveyance and equitable distribution of water.

Enclosed for your review is the project's NMCRIS Investigation Abstract Form. The current La Joya Acequia Rehabilitation Project area was previously surveyed for cultural resources in 1991-1992 by Marshall and Marshall (1992) for the Bureau of Reclamation and by Corps archaeologists Gregory D. Everhart and John D. Schelberg in July of 2001 (Everhart 2001). To verify that there were no new archaeological discoveries in the area since the 2001 Corps survey, on October 23 and 24, 2007, the Corps conducted remote electronic data searches of the New Mexico Archaeological Record Management Section's (ARMS) New Mexico Cultural Resources Inventory System (NMCRIS) database as well as of the State Register of Cultural Properties and the National Register of Historic Places. No State or Federal Register properties are reported to occur in the immediate vicinity of the project area. One previously recorded archaeological site, LA88304, a prehistoric and Hispanic component site known as Los Ranchitos de la Joya (Marshall and Marshall 1992), occurs near the project area but would not be affected by the proposed project. No other archaeological resources are known to occur in the immediate vicinity of the project area. Pursuant to 36 CFR 800.4b, historic properties in the vicinity of the project area, as noted above, were documented in the Corps 2001 survey report entitled **A Cultural Resources Inventory of 16.5 Acres for the Rehabilitation of La Joya Acequia, near La Joya, Socorro County, New Mexico** (Everhart, 2001; Report No. COE-01-04, NMCRIS No. 75725).

The historic La Joya Acequia was previously determined eligible for nomination to the National Register of Historic Places under criteria "a" and "d" of 36 CFR 60.4. Although two segments of the La Joya Acequia are still in use, they were previously given New Mexico Laboratory of Anthropology site numbers, LA109835 and LA108453, for Segments No. 3 and No. 5, respectively (Kneebone 1995:8; Everhart 2001:11-12). The current concrete ditch lining and arroyo pipeline rehabilitation project will connect to the downstream end of Segment 5's underground pipeline. The proposed rehabilitation work would have a negligible effect to Segment 5.

The proposed rehabilitation would not deviate from the existing ditch alignment and would not affect the acequia's intended function. The early-1800s acequia's structural components have been rebuilt numerous times during years of operations and maintenance activities; therefore, the proposed project would have no adverse effect on the acequia's structural form. However, more than 30-percent of the acequia system has been modified by rehabilitation projects since 1995; therefore, this can be considered as an adverse effect to

historic properties. To mitigate for this adverse effect, the Corps will prepare an oral history by conducting interviews with Acequia Association members. Currently; however, there is no federal budget and the Corps has no Acequia Rehabilitation Program funding. The La Joya Acequia Association also does not have adequate cost-share funding. Since the proposed 2007 rehabilitation project would have a negligible effect upon the acequia system as a whole, the Corps requests that the oral history documentation be delayed to sometime in the near future when funding becomes available. With this letter, the Corps is also submitting archival-quality copies of previous Corps/La Joya Acequia archaeological survey reports as well as aerial photography of the acequia's ditch alignment.

Pursuant to 36 CFR 800.13, should previously unknown artifacts or other historic properties be encountered during construction, work would cease in the immediate vicinity of the resource. A determination of significance would be made, and a mitigation plan would be formulated in consultation with the New Mexico State Historic Preservation Officer and with American Indian Tribes that have cultural concerns in the area.

If you have any questions or require additional information regarding the 2007 La Joya Acequia Rehabilitation Project, please contact Gregory D. Everhart, Archaeologist at (505) 342-3352, or myself, at (505) 342-3281.

Sincerely,


Julie Alcon,
Chief, Environmental Resources
Section

9 Jan 2008
Date

I CONCUR 

KATHERINE SLICK
NEW MEXICO STATE HISTORIC
PRESERVATION OFFICER

Enclosures